

THE "MISSING" FEMALES OF *ALBERTISIUS GESTROI* (PASCOE)
(COLEOPTERA: CURCULIONIDAE), AN ENIGMA OF NATURAL
HISTORY, WITH A NOTE ON DR H. JAMES

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Abstract.—The hitherto unknown female of *Albertisius gestroi* (Pascoe) (Curculionidae: Entiminae, Celeuthetini) is described and figured and its genitalia compared with those of *A. excellens* (Faust). Attempts to account for the apparent dearth of females in *A. gestroi* are followed by a note on Dr. H. James, an American who collected one of the specimens described.

Key Words: Curculionidae, sex ratio, genitalia, New Guinea, explorers

The New Guinea weevil genus *Albertisius* contains two species, *A. gestroi* (Pascoe) known only from Yule I. and *A. excellens* (Faust) which occurs around Port Moresby. When *Albertisius* was described (Thompson 1977: 253) both sexes of *A. excellens* were known (from at least 12 males and 9 females) whereas *A. gestroi* was known only from 26 males, nearly all collected by the Italian explorer L. M. D'Albertis. Later, a single female was found among undetermined material in the Natural History Museum and a check of the Genoa Museum's 27 D'Albertis specimens by the curator, Dr. Poggi, revealed two more. The sex ratio for the available specimens is thus 51:3 or 17:1 in favour of males. The newly discovered female of *A. gestroi* is described below.

Albertisius gestroi (Pascoe), female

Apirocalus gestroi Pascoe 1885: 209; pl. 1, Fig. 3.

Heteroglymma gestroi (Pascoe); Marshall 1938: 96.

Apirocalus gestroi Pascoe; Marshall 1956: 17.

Albertisius gestroi (Pascoe); Thompson 1977: 253.

Differs from male (Fig. 1) as follows: elytra with dorso-lateral carinae reduced but sides strongly angulate two-thirds of length from base (Fig. 2); covered with stiff erect brown setae. Legs with all femora less swollen; hind tibiae less swollen but with similar dense brush of semi-recumbent setae on inner aspect.

Female genitalia (Fig. 6) similar to those of *A. excellens* (Thompson 1977: fig. 23). Spermatheca (Fig. 5) clearly of same very distinctive type as that of *A. excellens* (Figs. 7, 8) but gland-lobe free (not fused laterally with body) and duct-lobe much shorter.

Material examined.—1 ♀, with 'N. Guinea/ Isola Yule/ T.F. V.1875/ L. M. D'Albertis' (mostly printed) (Genoa Museum); 1 ♀, with 'New/ Guinea/ [B.M. 18]76.32' (handwritten, with orange line)(Natural History Museum, London). The register en-



1



2



3



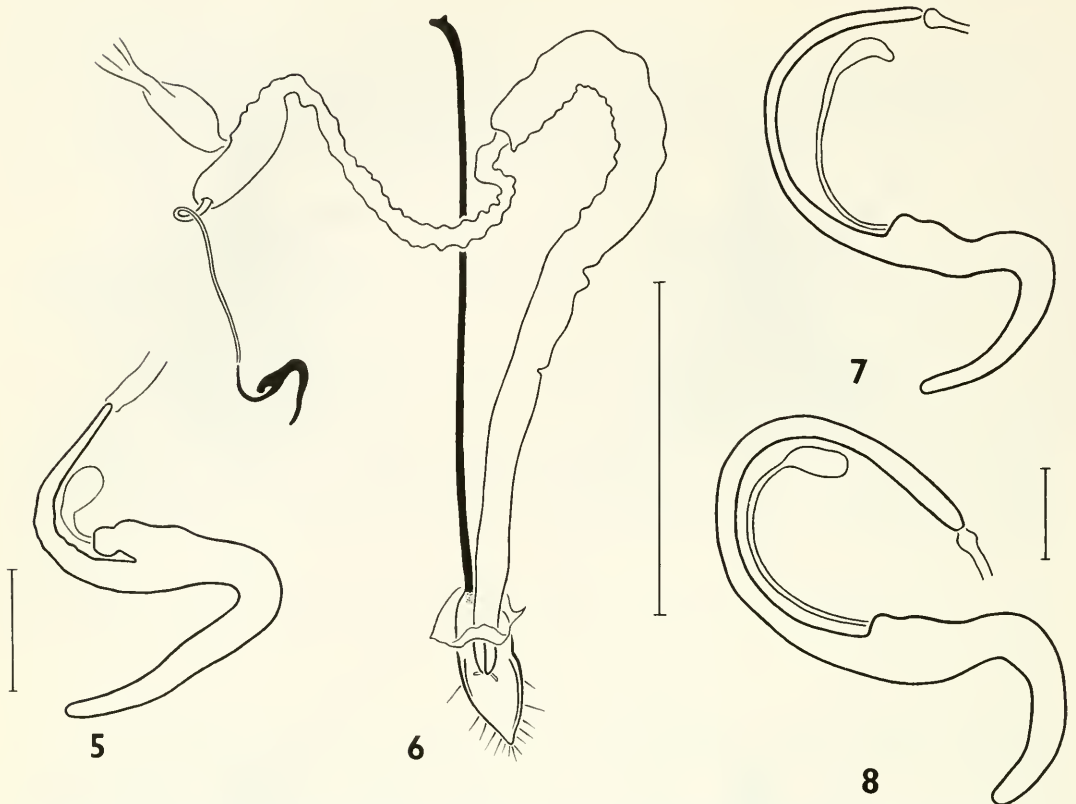
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Figs. 1-4. *Albertisius* species. 1, *A. gestroi* (Pascoe), male. 2, *idem*, female. 3, *A. excellens* (Faust), male. 4, *idem*, female. Scale-line = 2.0 mm.

try for this specimen reads: "Purchased of Mr Higgins 20/10/76. Collected by Dr James."

The second Genoa specimen was not examined.

Remarks.—*Albertisius gestroi* is a fairly typical celeuthetine weevil, apterous and showing moderate sexual dimorphism (mainly affecting the shape of the elytra). The most likely explanation for a predom-



Figs. 5-8. *Albertisius* species, genitalia. 5, *A. gestroi* (Pascoe), spermatheca. 6, *idem*, female genitalia. 7 and 8, *A. excellens* (Faust), spermathecae. Scale-lines = 0.2 mm (Figs. 5, 7 and 8) and 2.0 mm (Fig. 6).

inance of males would be asynchronous emergence of the sexes but D'Albertis was on the island from March to October and moreover collected some 250 specimens of a related species (*Apirocalus cornutus* Pascoe) in April, May and June while his *A. gestroi* specimens were all taken in May. From his journal (D'Albertis 1880) it is known that his movements, even within the island, were restricted so it is possible that the specimens were collected by one of the natives (that he records having employed to collect for him) from a site to which he himself did not have access. It is worth noting that James's specimen must have been taken between October and January, the wet season, a time of year which D'Albertis did not spend on the island.

The few other records of *A. gestroi*

(Thompson 1977: 256) are undated but none is recent. As Yule I. is only about five miles long and much visited, it may well be that the species is extinct and the mystery of its anomalous sex ratio will never be solved.

HISTORICAL NOTE

Little is known of Dr. H. James who collected the Natural History Museum female of *A. gestroi* (Fig. 2). He was a young American recruited by William Macleay as surgeon on the barque *Chevert* which was used by Macleay for his New Guinea expedition of 1875. He was described as "of pleasant manners" (D'Albertis 1880, 1: 363) and "... had been instructed in the art of bird skinning and was a first-rate shot" (Goode 1977: 106). He first met D'Albertis on Yule I. on 30 August 1875 when the expedition stopped

there on its way to the New Guinea mainland and again in late October on his way back to Port Moresby on the missionary supply steamer *Ellengowan*. He returned to Yule I. with a botanical collector named Knight on 6 November "to set up a house and make collections" (D'Albertis 1880, 1: 387). On the same visit the *Ellengowan* took D'Albertis off, so James and Knight were the only Europeans on the island. After three months both were so ill they returned to Somerset (Cape York) on the *Ellengowan*. James returned to Yule I. yet again on 23 August 1876 with a Swedish trading partner but both were unexpectedly murdered by natives upon their arrival.

Some of the beetles James collected (including the *A. gestroi* female) were sent to E. T. Higgins, a collector and dealer, who sold them to the Natural History Museum on 20 October 1876 by which time James was dead. A cetonine beetle, *Ischiopsopha jamesii* (Waterhouse), from the same lot of specimens, was named after him "in accordance with a wish expressed by Mr Higgins" (Waterhouse 1876: 473).

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Figs. 1, 7 and 8 are reproduced from Thompson (1977) by permission of the Trustees of the Natural History Museum; Figs. 1-4 were prepared by the Natural History Museum Photographic Unit.

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